

What is Claimed is:

1. A toaster for toasting a bread slice, comprising:

a toaster housing having a toaster slot for said bread slice disposing therein;

5 a toasting device provided in said toaster housing for toasting said bread slice in
said toaster slot; and

a toast racking arrangement, comprising:

a bread supporting rack movably mounted in said toaster slot for supporting said
bread slice;

10 a motor having a driving shaft rotatably extended thereof for producing a
rotational force; and

15 a rack driving unit comprising a driving member having a motor driving end
engaged with said driving shaft of said motor and a rack driving end movably coupled
with said bread supporting rack in such a manner that when said driving shaft is driven to
rotate, said driving member drives said bread supporting rack to slidably move along said
toaster slot between an upper releasing position and a lower toasting position, wherein at
said releasing position, said driving member is driven by said motor to lift up said bread
supporting rack along said toaster slot, and at said toasting position, said driving member
is driven to lower said bread supporting rack for toasting said bread slice by said toasting
device within said toaster slot.

20 2. The toaster, as recited in claim 1, wherein said motor driving end of said
driving member is driven to rotate by said driving shaft to drive said rack driving end of
said driving member to move between said releasing position and said toasting position
for converting said rotational force of said driving shaft into a linear movement of said
bread supporting rack, wherein at said releasing portion, said driving member is driven
25 that said rack driving end of said driving member is positioned above said motor driving
end thereof, and at said toasting position, said rack driving end of said driving member is
positioned below said motor driving end thereof.

3. The toaster, as recited in claim 1, wherein said bread supporting rack has a coupling slot longitudinally extended at a bottom portion of said bread supporting rack, wherein said rack driving end is reciprocally engaged with said coupling slot in a slidably movable manner such that when said motor driving end of said driving member is driven to rotate, said rack driving end of said driving member is slid along said coupling slot to push said bread supporting rack downwardly to said toasting position and to pull said bread supporting rack upwardly to said releasing position.

4. The toaster, as recited in claim 2, wherein said bread supporting rack has a coupling slot longitudinally extended at a bottom portion of said bread supporting rack, wherein said rack driving end is reciprocally engaged with said coupling slot in a slidably movable manner such that when said motor driving end of said driving member is driven to rotate, said rack driving end of said driving member is slid along said coupling slot to push said bread supporting rack downwardly to said toasting position and to pull said bread supporting rack upwardly to said releasing position.

15 5. The toaster, as recited in claim 1, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

20 6. The toaster, as recited in claim 2, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

30 7. The toaster, as recited in claim 4, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control

circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

8. The toaster, as recited in claim 2, wherein said toast racking arrangement
5 further comprises a resilient element disposed within said toaster slot for applying an urging force against said bread supporting rack to lift up said bread supporting rack, so as to normally retain said bread supporting rack at said releasing position.

9. The toaster, as recited in claim 8, wherein said bread supporting rack has a biasing shoulder outwardly extended from a bottom side of said bread supporting rack,
10 wherein said rack driving end of said driving member is slidably held on said biasing shoulder of said bread supporting rack such that when said motor driving end of said driving member is driven to rotate, said rack driving end of said driving member pulls said bread supporting rack downwardly to said toasting position.

10. The toaster, as recited in claim 9, wherein said resilient element is a compressive spring has two ends biasing against said bottom side of said bread supporting rack and a bottom wall of said toaster housing for providing a pushing force as said urging force against said bread supporting rack, so as to normally push said bread supporting rack upwardly to said releasing position.

11. The toaster, as recited in claim 9, wherein said resilient element is a compressive spring has two ends biasing against said bottom side of said bread supporting rack and a ceiling wall of said toaster housing for providing a pulling force as said urging force against said bread supporting rack, so as to normally pull said bread supporting rack upwardly to said releasing position.

12. The toaster, as recited in claim 10, wherein said toast racking arrangement
25 further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit
30 automatically deactivates said toasting device.

13. The toaster, as recited in claim 11, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

14. The toaster, as recited in claim 2, wherein said toast racking arrangement further comprises a resilient element disposed within said toaster slot for applying an urging force against said bread supporting rack to lower said bread supporting rack, so as to normally retain said bread supporting rack at said toasting position.

15. The toaster, as recited in claim 14, wherein said bread supporting rack has a biasing shoulder outwardly extended from a bottom side of said bread supporting rack, wherein said rack driving end of said driving member is slidably biased against said bottom side of said biasing shoulder of said bread supporting rack such that when said motor driving end of said driving member is driven to rotate, said rack driving end of said driving member pushes said bread supporting rack upwardly to said releasing position.

16. The toaster, as recited in claim 15, wherein said resilient element is a compressive spring has two ends biasing against said bottom side of said bread supporting rack and a bottom wall of said toaster housing for providing a pulling force as said urging force against said bread supporting rack, so as to normally pull said bread supporting rack downwardly to said toasting position.

17. The toaster, as recited in claim 15, wherein said resilient element is a compressive spring has two ends biasing against said bottom side of said bread supporting rack and a ceiling wall of said toaster housing for providing a pushing force as said urging force against said bread supporting rack, so as to normally push said bread supporting rack downwardly to said toasting position.

18. The toaster, as recited in claim 16, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control

circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

19. The toaster, as recited in claim 17, wherein said toast racking arrangement
5 further comprises a motor control circuit electrically connected said motor with said
toasting device for controlling an operation of said toaster device in such a manner that
when said bread supporting rack is driven to said toasting position, said motor control
circuit automatically activates said toasting device for toasting said bread slice, and when
said bread supporting rack is driven to said releasing position, said motor control circuit
10 automatically deactivates said toasting device.

20. The toaster, as recited in claim 1, wherein said driving member comprises
a motor driving element and a motor driven element pivotally connected to said motor
driving element in an end-to-end manner, wherein said motor driving end is defined at
said motor driving element to engage with said driving shaft and said rack driving end is
15 defined at said motor driven element to pivotally couple with said bread supporting rack,
in such a manner that at said toasting position, said driven motor driving element is
pivotally overlapped with said motor driven element to reduce a distance between said
motor driving end and said rack driving end so as to pull said bread supporting rack
downwardly, and at said releasing position, said driven motor driving element is pivotally
20 extended from said motor driven element to extend a distance between said motor driving
end and said rack driving end so as to push said bread supporting rack upwardly.

21. The toaster, as recited in claim 2, wherein said driving member comprises
a motor driving element and a motor driven element pivotally connected to said motor
driving element in an end-to-end manner, wherein said motor driving end is defined at
25 said motor driving element to engage with said driving shaft and said rack driving end is
defined at said motor driven element to pivotally couple with said bread supporting rack,
in such a manner that at said toasting position, said driven motor driving element is
pivotally overlapped with said motor driven element to reduce a distance between said
motor driving end and said rack driving end so as to pull said bread supporting rack
30 downwardly, and at said releasing position, said driven motor driving element is pivotally
extended from said motor driven element to extend a distance between said motor driving
end and said rack driving end so as to push said bread supporting rack upwardly.

22. The toaster, as recited in claim 20, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.

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23. The toaster, as recited in claim 21, wherein said toast racking arrangement further comprises a motor control circuit electrically connected said motor with said toasting device for controlling an operation of said toaster device in such a manner that when said bread supporting rack is driven to said toasting position, said motor control circuit automatically activates said toasting device for toasting said bread slice, and when said bread supporting rack is driven to said releasing position, said motor control circuit automatically deactivates said toasting device.